

by the pointing relationships between the Patient Information table ("Patient_Infor") 354 and the radially outlying tables 304, 332, 326, 334, 336, 378, 312 and 324. The Patient Information table 354 thus points to several other tables, thus allowing a variety of types of information to be retrieved by patient information such as patient name or number. The Diagnosis History table 312 also points to Diagnosis List 308, which allows the diagnosis history screen to retrieve the customized list of particular diagnoses listed in table 308. Similarly, the Vitals table 378 points to the User Information table 374, allowing access to the information contained in table 374 from the Vitals screen.

FIG. 24 illustrates the relationships among tables in the clinical screens described in FIGS. 13–20. Most of the relationships illustrated in the top half of FIG. 24 are explained in the discussion of Patient Information relationships of FIG. 23 above. As can be seen in FIG. 24, lab test information contained in table 346, which points to Lab Information table 368 and Lab Report table 344, points to Patient Information table 354, allowing retrieval of the lab information contained in tables 346, 368 and 344 via the patient information screens. The insurance information relating to labs and other insurance information contained in tables 340 and 336 are also linked to the Patient Information table 354 and to each other.

In the lower half of FIG. 24, the Procedure History table 358, the Prescription table 356, and the progress table 362 have pointing relationships with each other. This allows, for example, information on progress to be retrieved from the prescription information screens, or for procedure history to be retrieved from the progress screens. These tables 358, 362, and 356 also point to the User Information Table 374 and Patient Information table 354. As shown in the figure, the Procedure History table 358 also points to a Custom Procedure list 310 and the Diagnosis History table 312. The Diagnosis History table 312 also points to the Custom Diagnosis table 308. The Progress table 362 is actually an index of information which points to and allows access to the related progress notes tables 364, 352, 350, 372, 370 and 330. Finally, the Prescription table 356 points to both the Prescription Instruction table 338 and the Prescription Dosage table 322.

The relationships among these various tables are exemplary, and other relationships may be established by pointing between other tables, or creating new tables and displays, as the programmer desires.

The data contained in the database described above, preferably within the tables shown in FIGS. 21–24, can allow the user to access and analyze patient data in a variety of ways. In particular, the information previously gathered and stored in the database can be analyzed or compiled to track the effectiveness of treatments or medications on particular illnesses and the reasons therefor. Furthermore, patterns of diseases or symptoms may be tracked within a given geographical area or group of patients. The user can also identify trends in patient load and schedule in order to maximize the efficiency and effective use of the physician's time.

These various analyses may be accomplished via user screens similar to those described previously. For example, the user can choose an item (such as a table or a group of tables) and "drag" the item to a place on the screen and "drop" the item onto various icons representing processing options. The program would determine the hierarchy of the data chosen and group the data to generate data queries. The compiled data could then be printed into report format for use outside of the system.

From the foregoing, a comprehensive system and method for managing patient medical information in a medical clinic or physician's office has been described. The system includes at least a computer having a processor, memory, data input device and display capable of receiving, manipulating and displaying medical information. A common graphic user interface allows authorized users to manage medical information and provides physicians with a useful diagnostic tool to assist in examination and diagnosis of patients. Additionally, a method of managing, storing, recording and displaying patient medical data has been described that includes scheduling appointments, obtaining patient background information, retrieving, recording and displaying patient examination information, generating billing materials, generating analysis reports and generating prescriptions.

It is intended that the foregoing detailed description be regarded as illustrative rather than limiting, and that it be understood that the following claims, including all equivalents, are intended to define the scope of this invention.

We claim:

1. A computer aided method for creating, managing, updating, and analyzing patient information in a medical database to assist in the efficient operation of a medical clinic, the method comprising the steps of:

scheduling patient appointments and storing the appointments in a relational database;

compiling patient data, the data including at least one of medical history and demographic information, in the relational database;

displaying patient data compiled in the database to a user; displaying an allergy warning to the user during a patient office visit;

updating patient data with progress notes concurrently with an examination of the patient during the patient office visit wherein the user records the progress notes into the relational database; and

recording a diagnosis based on the progress notes.

2. The method defined in claim 1, wherein the step of displaying patient data to a user further comprises the steps of requesting a password from the user for access to patient data and selecting patient data for a particular patient by entering patient identification information.

3. The method defined in claim 2, wherein the step of displaying patient data further comprises the steps of selecting and reviewing at least one of demographic information, habit information, family history information and vital statistics information for the particular patient.

4. The method defined in claim 1, wherein the step of compiling patient data further comprises:

questioning a patient for personal information concerning at least one of the patient's insurance coverage, demographics, allergies, family medical history and habits;

recording the personal information into the relational database via a graphic user interface;

measuring the patient's vital statistics; and

recording the measured vital statistics into the relational database via the graphic user interface.

5. The method defined in claim 1, wherein the step of scheduling appointments comprises scheduling an appointment by selecting a desired physician; displaying available appointment times for the selected physician; and selecting an available appointment time for an appointment.